

## Complete Summary

---

### **GUIDELINE TITLE**

Stroke rehabilitation and community reintegration. Provision of inpatient stroke rehabilitation. In: Canadian best practice recommendations for stroke care: 2006.

### **BIBLIOGRAPHIC SOURCE(S)**

Stroke rehabilitation and community reintegration. Provision of inpatient stroke rehabilitation. In: Canadian best practice recommendations for stroke care: 2006. Ottawa (ON): Canadian Stroke Network, Heart & Stroke Foundation of Canada; 2006. p. 67-70.

### **GUIDELINE STATUS**

This is the current release of the guideline.

The Canadian Best Practice Recommendations for Stroke Care 2006 will be updated every two years to remain current and incorporate new research findings.

## COMPLETE SUMMARY CONTENT

SCOPE  
 METHODOLOGY - including Rating Scheme and Cost Analysis  
 RECOMMENDATIONS  
 EVIDENCE SUPPORTING THE RECOMMENDATIONS  
 BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS  
 QUALIFYING STATEMENTS  
 IMPLEMENTATION OF THE GUIDELINE  
 INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT  
 CATEGORIES  
 IDENTIFYING INFORMATION AND AVAILABILITY  
 DISCLAIMER

## SCOPE

### **DISEASE/CONDITION(S)**

Stroke, including ischemic and hemorrhagic stroke

### **GUIDELINE CATEGORY**

Management  
 Treatment

### **CLINICAL SPECIALTY**

Family Practice  
Internal Medicine  
Neurology  
Nursing  
Physical Medicine and Rehabilitation  
Speech-Language Pathology

## **INTENDED USERS**

Advanced Practice Nurses  
Dietitians  
Nurses  
Occupational Therapists  
Physical Therapists  
Physician Assistants  
Physicians  
Psychologists/Non-physician Behavioral Health Clinicians  
Social Workers  
Speech-Language Pathologists

## **GUIDELINE OBJECTIVE(S)**

To synthesize available literature and recommend best practices in stroke care appropriate to the Canadian context

## **TARGET POPULATION**

All patients with stroke who are admitted to the hospital and require rehabilitation

## **INTERVENTIONS AND PRACTICES CONSIDERED**

### **Assessment/Management**

1. Interdisciplinary stroke rehabilitation
2. Referral to a comprehensive rehabilitation stroke unit
3. Initial assessment and development of a comprehensive rehabilitation plan
4. Functional status assessment by standardized assessment tools
5. Longer-term inpatient rehabilitation

## **MAJOR OUTCOMES CONSIDERED**

- Hospitalization length of stay
- Walking mobility
- Functional status
- Quality of life

## **METHODOLOGY**

### **METHODS USED TO COLLECT/SELECT EVIDENCE**

## **DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE**

### **Background**

Over the past few years, extensive work reviewing stroke care guidelines has been done in Canada. Rather than duplicate this work, the Working Group used as a starting point two recent initiatives: the Canadian Stroke Quality of Care Study (CSQCS), which focuses on acute care, telestroke, and secondary prevention; and the Stroke Canada Optimization of Rehabilitation through Evidence (SCORE) project, which focuses on rehabilitation. These studies of best practices and performance measurement in stroke care flow from four Canadian consensus panels (three for CSQCS and one for SCORE) conducted during 2004–2006.

- CSQCS reviewed stroke guideline recommendations and developed a core set of performance measures for several phases along the continuum of stroke care. This was achieved through modified Delphi survey methodology involving national expert consensus panels, and discussions at Canadian consensus panel meetings using nominal group process methods. Additional rating rounds followed the panel meetings to ensure final agreement on the performance indicators by panel members.
- SCORE identified Clinical Practice Guidelines for stroke rehabilitation, evaluated each guideline's quality of development using the AGREE instrument, and undertook an extensive review process of the guideline content to reach agreement on stroke rehabilitation recommendations for Canada.

The rigorous work of the CSQCS and the SCORE projects formed the foundation of the work of the Best Practices and Standards Working Group (BPS-WG) and provided direction for the identification of Phase I Primary Guidelines and topics.

### **Methodology**

The BPS-WG chose a conceptual framework to follow for the identification and selection of stroke recommendations. The Practice Guideline Evaluation and Adaptation Cycle guided development of the recommendations, which included the following steps: systematic searching for existing practice guidelines; appraising the quality of guidelines using a validated tool; content analysis of guideline recommendations; selecting recommendations for inclusion in the BPS-WG document; obtaining external expert feedback on the proposed recommendations.

### **Identification of Primary Guidelines**

In December 2005, the BPS-WG reviewed the SCORE project's ratings of a number of published stroke care guidelines. Those which had the highest scores on the AGREE tool and/or those which were considered most relevant to the Canadian context were selected as the Primary Guidelines for the development of the Phase I recommendations. It was agreed that additional guidelines (European Stroke Initiative, guidelines released since the SCORE/CSQCS projects were

completed) would be considered as required to support the recommendation development process.

## **NUMBER OF SOURCE DOCUMENTS**

Not stated

## **METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE**

Weighting According to a Rating Scheme (Scheme Given)

## **RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE**

Several rating systems are used by guideline developers to evaluate the strength of the evidence for their recommendations. These systems vary in the nomenclature used (alpha versus numeric), but there is usually reasonable equivalence in the definitions across the levels of evidence. Each recommendation in the original guideline document provides the levels of evidence for the recommendation as well as the reference for the Primary Guideline(s) that were adapted or contributed most to the wording of the recommendation.

| <b>Level of Evidence*</b> |     | <b>Definition</b>  |
|---------------------------|-----|--|
| A                         | I   | At least one randomized controlled trial (RCT); or, meta-analysis of RCTs  |
| B                         | II  | Well designed controlled trial without randomization; or, well designed cohort or case-control analytic study; or, multiple time series, dramatic results of uncontrolled experiment                             |
| C                         | III | At least one well designed, non-experimental descriptive study (e.g., comparative studies, correlation studies, case studies); or, expert committee reports, opinions and/or experience of respected authorities |
| D                         | IV  | Expert committee reports, opinions and/or experience of respected authorities. This grading indicates that directly applicable clinical studies of good quality are absent.                                      |
| R                         | R   | Recommended good practice based on the clinical experience of the Guideline Development Group  |

\*Refer to Appendix One in the original guideline document for a detailed table defining the evidence rating system used by each primary guideline referenced in this document.

## **METHODS USED TO ANALYZE THE EVIDENCE**

Systematic Review with Evidence Tables

## **DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE**

A Stroke Best Practices Recommendations Matrix was developed that mapped other existing stroke-related recommendations and their levels of evidence onto topic areas identified as relevant to optimal stroke care in Canada (i.e., blood pressure management, organization of care).

The list of topics was generated by identifying recommendations with the highest levels of evidence in each of the reference guidelines. Where similar or related recommendations on a particular topic appeared in more than two guidelines, it was added to the topic list. The final list of topics was then cross-referenced with SCORE and the Canadian Stroke Quality of Care Study (CSQCS) studies.

The Best Practices Recommendations Matrix was created through an iterative process of review and discussion among the members of the sub-group and the BPS-WG as a whole.

### **Evaluation of Levels of Evidence**

Each recommendation included in this document was evaluated against several criteria: strength of the available research evidence to support the recommendation; degree to which the recommendation drives system change or processes of care delivery; overall validity and relevance as a core recommendation for stroke care along the continuum of care. The levels of evidence included in this document are determined through a structured ranking system which measures the strength of the results in a clinical trial or research study. The design of the study (such as a case report for an individual patient or a randomized double-blinded controlled clinical trial) and the endpoints measured (such as survival or quality of life) affect the strength of the evidence.

The various types of study designs, in descending order of strength, include:

- i. Randomized controlled clinical trials (double-blinded or nonblinded) are considered the gold standard of study design.
- ii. Meta-analyses of randomized studies offer a quantitative synthesis of previously conducted studies. The strength of evidence from a meta-analysis is based on the quality of the conduct of individual studies. Meta-analyses of randomized studies are placed in the same category of strength of evidence as are randomized studies.
- iii. Nonrandomized controlled clinical trials.
- iv. Case series: population-based, consecutive series; consecutive cases (not population-based); or, non-consecutive cases. These clinical experiences are the weakest form of study design, but often they can be the only available or practical information.

Several rating systems are used by guideline developers to evaluate the strength of the evidence for their recommendations. These systems vary in the nomenclature used (alpha versus numeric), but there is usually reasonable equivalence in the definitions across the levels of evidence. Each recommendation in the original guideline document provides the levels of evidence for the recommendation (see "Rating Scheme for the Strength of the Evidence" field), as well as the reference for the Primary Guideline(s) that were adapted or contributed most to the wording of the recommendation.

## **METHODS USED TO FORMULATE THE RECOMMENDATIONS**

Expert Consensus (Consensus Development Conference)  
Expert Consensus (Delphi)  
Other

## **DESCRIPTION OF METHODS USED TO FORMULATE THE RECOMMENDATIONS**

The Best Practices and Standards Working Group (BPS-WG) chose a conceptual framework to follow for the identification and selection of stroke recommendations. The Practice Guideline Evaluation and Adaptation Cycle guided development of the recommendations, which included the following steps: systematic searching for existing practice guidelines; appraising the quality of guidelines using a validated tool; content analysis of guideline recommendations; selecting recommendations for inclusion in the BPS-WG document; obtaining external expert feedback on the proposed recommendations.

### **Drafting of the 2006 Stroke Recommendations**

Once agreement on a core set of reference Guidelines, topic areas, and the content of the Matrix was reached, the Working Group formed four Ad-hoc Groups to:

- Review all recommendations on the Matrix in their areas of expertise
- Propose draft recommendation statements for each topic
- State a rationale for inclusion of the recommendation and its relevance to stroke care delivery or patient outcomes
- Identify any additional reference sources used to guide their decision-making

There were some recommendations from the core reference Guidelines which had high levels of supporting evidence but which did not appear on the draft topic list. These were considered by the Ad Hoc Groups; as a result, some topics were revised and three topics (post-stroke depression, post-stroke shoulder pain, and community rehabilitation) were added. No topics were eliminated.

Following this process, a full set of draft recommendations was presented to a group of 40 stroke experts and relevant stakeholders from across the country during the Best Practices and Standards National Consensus Conference, held in Halifax in April 2006.

Break-out sessions were held in which participants met in groups relevant to their expertise and reviewed a specific set of recommendations. Each group was made up of members of the original Ad Hoc Groups as well as other consensus conference participants who were new to the process. These break-out groups had access to all documentation used to develop the recommendations, particularly the Matrix and its supporting documents. They discussed each proposed recommendation with respect to relevance, current evidence and practice, and challenges to uptake and implementation. Each group then presented the results of their discussion to the full group, and suggested changes were debated and

approved, rejected, or tabled for further discussion by the Best Practices and Standards Working Group (BPS-WG).

See Section C.4 in the original guideline document for a description of the methods used to develop performance measures.

## **RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS**

Not applicable

## **COST ANALYSIS**

A formal cost analysis was not performed and published cost analyses were not reviewed.

## **METHOD OF GUIDELINE VALIDATION**

External Peer Review  
Internal Peer Review

## **DESCRIPTION OF METHOD OF GUIDELINE VALIDATION**

Following the Consensus Conference, the original Ad Hoc Groups reconvened to review the feedback and propose final wording for the 2006 recommendations. This process was complete by June 2006. A final round of external reviews was completed prior to publication.

# **RECOMMENDATIONS**

## **MAJOR RECOMMENDATIONS**

Definitions of the levels of evidence (A-D; I-IV; R) are provided at the end of the "Major Recommendations" field.

**Note from the Canadian Stroke Network/Heart & Stroke Foundation of Canada and the National Guideline Clearinghouse (NGC):** The *Canadian Best Practice Recommendations for Stroke Care: 2006* guideline has been divided into individual summaries. In addition to the current summary, the following are available:

- [Public awareness and responsiveness.](#)
- [Patient and caregiver education.](#)
- [Stroke prevention. Life style and risk factor management.](#)
- [Stroke prevention. Blood pressure management.](#)
- [Stroke prevention. Lipid-management.](#)
- [Stroke prevention. Diabetes management.](#)
- [Stroke prevention. Antiplatelet therapy.](#)
- [Stroke prevention. Antithrombotic therapy in atrial fibrillation.](#)
- [Stroke prevention. Carotid intervention.](#)
- [Acute stroke management. Stroke unit care.](#)

- [Acute stroke management. Brain imaging.](#)
- [Acute stroke management. Blood glucose.](#)
- [Acute stroke management. Acute thrombolytic treatment.](#)
- [Acute stroke management. Carotid artery imaging.](#)
- [Acute stroke management. Dysphagia assessment.](#)
- [Acute stroke management. Acute aspirin therapy.](#)
- [Acute stroke management. Management of subarachnoid and intracerebral hemorrhage.](#)
- [Stroke rehabilitation and community reintegration. Initial stroke rehabilitation assessment.](#)
- [Stroke rehabilitation and community reintegration. Components of inpatient stroke rehabilitation.](#)
- [Stroke rehabilitation and community reintegration. Identification and management of post-stroke depression.](#)
- [Stroke rehabilitation and community reintegration. Shoulder pain assessment and treatment.](#)
- [Stroke rehabilitation and community reintegration. Community-based rehabilitation.](#)
- [Follow-up and community reintegration after stroke.](#)

### **Best Practice Recommendation**

- All patients with stroke who are admitted to hospital and who require rehabilitation should be treated in a comprehensive or rehabilitation stroke unit by an interdisciplinary team. (**Evidence Level A/I**)
- Post-acute stroke care should be delivered in a setting in which rehabilitation care is formally coordinated and organized. (**Evidence Level 1**)
- All patients should be referred to a specialist rehabilitation team on a geographically defined unit as soon as possible after admission. (**Evidence Level A**)
- Post-acute stroke care should be delivered by a variety of treatment disciplines, experienced in providing post stroke care, to ensure consistency and reduce the risk of complications. (**Evidence Level C**)
- The interdisciplinary team may consist of a physician, nurse, physical therapist, occupational therapist, speech and language pathologist, psychologist, social worker, dietitian, recreation therapist, patient and family/caregivers. (**Evidence Level 1**). This "core" interdisciplinary team should consist of appropriate levels of these disciplines, as identified by the Stroke Unit Trialists' Collaboration. (**Evidence Level B**)
- The interdisciplinary team should assess patients within 24 to 48 hours of admission, and develop a comprehensive rehabilitation plan to reflect the severity of the stroke and the needs and goals of the stroke survivor. (**Evidence Level C**)
- Stroke unit teams should conduct at least one formal interdisciplinary meeting per week to discuss the progress and problems, rehabilitation goals, and discharge arrangements for patients on the unit. (**Evidence Level B**)
- Standardized assessment tools should be used to assess the functional status of stroke patients. (**Evidence Level II**)
- Where admission to a stroke rehabilitation unit is not possible, longer-term inpatient rehabilitation should be provided on a mixed rehabilitation unit (i.e., where interdisciplinary care is provided to patients disabled by a range of disorders including stroke). (**Evidence Level B**)



## Rationale

Better clinical outcomes are achieved when post-acute stroke patients who are candidates for rehabilitation receive coordinated, interdisciplinary evaluation and intervention on a stroke rehabilitation unit. Stroke patients should be admitted early to stroke rehabilitation units as this results in improved functional outcomes (**Evidence Level II**).

Stroke is multi-faceted and requires a wide range of rehabilitation health professionals who can address the patients' impairments and disabilities post-stroke. Persons with moderate or severe stroke require rehabilitation to reduce the impairments and activity restriction caused by the stroke. The benefits of this approach are substantial and compared to a general hospital ward, coordinated and organized rehabilitation care in a stroke unit has been shown to reduce hospitalization length of stay, and to increase stroke survivor's walking mobility, functional status and quality of life. It is important that rehabilitation beds and resources are protected, in order to provide sufficient intensity of treatment during the inpatient rehabilitation phase. There is evidence that this interdisciplinary approach is one of the factors that result in reduced deaths and disability/ morbidity in specialized stroke units. For every 100 patients receiving organized inpatient interdisciplinary rehabilitation, an extra five returned home in an independent state.

Ambulatory (outpatient) and in-home rehabilitation services need to be coordinated between acute and rehabilitation services.

## Definitions:

### Levels of Evidence

Several rating systems are used by guideline developers to evaluate the strength of the evidence for their recommendations. These systems vary in the nomenclature used (alpha versus numeric), but there is usually reasonable equivalence in the definitions across the levels of evidence. Each recommendation in the original guideline document provides the levels of evidence for the recommendation as well as the reference for the Primary Guideline(s) that were adapted or contributed most to the wording of the recommendation.

| Level of Evidence* |     | Definition   |
|--------------------|-----|--|
| A                  | I   | At least one randomized controlled trial (RCT); or, meta-analysis of RCTs  |
| B                  | II  | Well designed controlled trial without randomization; or, well designed cohort or case-control analytic study; or, multiple time series, dramatic results of uncontrolled experiment                             |
| C                  | III | At least one well designed, non-experimental descriptive study (e.g., comparative studies, correlation studies, case studies); or, expert committee reports, opinions and/or experience of respected authorities |

| Level of Evidence* |    | Definition  |
|--------------------|----|---|
| D                  | IV | Expert committee reports, opinions and/or experience of respected authorities. This grading indicates that directly applicable clinical studies of good quality are absent. |
| R                  | R  | Recommended good practice based on the clinical experience of the Guideline Development Group   |

\*Refer to Appendix One in the original guideline document for a detailed table defining the evidence rating system used by each primary guideline referenced in this document.

## CLINICAL ALGORITHM(S)

None provided

## EVIDENCE SUPPORTING THE RECOMMENDATIONS

### TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

The type of evidence is specifically stated for each recommendation.

This document is the result of an extensive review of national and international evidence-based stroke best practice recommendations and guidelines.

## BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

### POTENTIAL BENEFITS

Coordinated and organized rehabilitation care in a stroke unit has been shown to reduce hospitalization length of stay, and to increase stroke survivor's walking mobility, functional status, and quality of life.

### POTENTIAL HARMS

Not stated

## QUALIFYING STATEMENTS

### QUALIFYING STATEMENTS

It is recognized that resource issues (financial, system, and human) will make it difficult to implement all recommendations in this document. However, the Best Practices and Standards Working Group consider these recommendations to be "gold standard" benchmarks toward which all stroke care services should be striving. Additionally, these recommendations can also serve as significant starting points for lobbying and advocacy work in aid of improved stroke care services.

## IMPLEMENTATION OF THE GUIDELINE

### DESCRIPTION OF IMPLEMENTATION STRATEGY

#### Dissemination and Uptake

Concomitant with the development of the document, consideration was given to methods of dissemination and uptake, including:

- Consultation with research experts in the field of knowledge translation and guideline dissemination across Canada.
- Sharing progress with other Canadian Stroke Strategy (CSS) working groups to ensure alignment and collaboration in dissemination.
- Presentation and discussion during draft stages of development to provincial stroke champions.
- Consultation with other national guideline groups in related fields (hypertension, dyslipidemia, diabetes).
- Presentation for discussion at the Annual General Meeting of the Canadian Stroke Network, with a break-out session on dissemination and uptake.
- Presentation for discussion at the Annual General Meeting of the Canadian Association of Neurological Nurses, and Ontario Stroke Rehabilitation Working Group. Break-out sessions were held to get feedback on the recommendations and have discussion on dissemination and uptake.

Additional knowledge translation activities will be undertaken following initial recommendations release. This will include seeking feedback at local and regional consultation sessions, and providing a guideline review tool for structured feedback as part of the recommendation dissemination package.

#### Core Elements of an Integrated Stroke Strategy\*

The key components required across the continuum as part of a "system" for coordinated and integrated stroke care are identified in the table "Core Elements of an Integrated Stroke Strategy" in the original guideline document. The development of coordinated and integrated stroke strategies at the local, regional and/or provincial/territorial levels should include as many of these components as possible to ensure comprehensiveness of the stroke strategy, although, as stated previously, it is recognized that systemic and resource restrictions may make this difficult for some groups.

\* Adapted from the Ontario Blue Book—Towards an Integrated Stroke Strategy for Ontario—Report of the Joint Stroke Strategy Working Group June 2000; the *Ontario Best Practice Guidelines for Stroke Care*; and the results of the *Canadian Stroke Strategy Information & Evaluation Consensus Panel*, September 2005.

#### System Implications

- Organized stroke care available including stroke units with critical mass of trained staff, interdisciplinary team during the rehabilitation period following stroke.
- Initial assessment performed by clinicians experienced in stroke and stroke rehabilitation.

- Timely access to specialized, interdisciplinary stroke rehabilitation services.
- Timely access to appropriate type and intensity of rehabilitation for stroke survivors.
- Optimization of strategies to prevent the recurrence of stroke.
- Definition, dissemination, and implementation of best practices for stroke rehabilitation across the continuum of care.
- Mechanisms for ongoing monitoring and evaluation, with a feedback loop for interpretation of findings and opportunities for quality improvement.

### **Performance Measures\*\***

- Number of stroke patients treated on a combined or rehabilitation-focused stroke unit at any time during their inpatient rehabilitation phase following an acute stroke event<sup>c</sup>.**
- Final discharge disposition for stroke survivors following inpatient rehabilitation: percentage discharged to their original place of residence; percentage discharged to a long term care facility or nursing home; percentage of patients requiring readmission to an acute care hospital for stroke related causes<sup>c</sup>.**
- Number of stroke patients assessed by: physiotherapy; occupational therapy; speech language pathologist; and social workers during inpatient rehabilitation.
- Proportion of total time during inpatient rehabilitation following an acute stroke event that is spent on a rehabilitation stroke unit.
- Frequency and duration/intensity of therapies received from rehabilitation professionals while in an inpatient rehabilitation setting following stroke.
- Percentage change in functional status using a standardized measurement tool, from time of admission to an inpatient rehabilitation unit for stroke patients, to the time of discharge.

\*\*It is not expected that each group using these recommendations will be able to document all performance measures provided. Therefore, the most significant measures have been **bolded** for easy identification. The remaining measures are provided for those groups who are able to conduct a more extensive evaluation of stroke practice in their region.

<sup>c</sup> The superscript 'c' following a recommended performance measure indicates that the performance measure is part of the CSS Core set of stroke performance measures identified at the CSS Information and Evaluation consensus meeting, 2005.

### **IMPLEMENTATION TOOLS**

Audit Criteria/Indicators  
Patient Resources  
Pocket Guide/Reference Cards

For information about [availability](#), see the "Availability of Companion Documents" and "Patient Resources" fields below.

## **INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES**

### **IOM CARE NEED**

Getting Better  
Living with Illness  
Staying Healthy

## **IOM DOMAIN**

Effectiveness  
Patient-centeredness  
Timeliness

## **IDENTIFYING INFORMATION AND AVAILABILITY**

### **BIBLIOGRAPHIC SOURCE(S)**

Stroke rehabilitation and community reintegration. Provision of inpatient stroke rehabilitation. In: Canadian best practice recommendations for stroke care: 2006. Ottawa (ON): Canadian Stroke Network, Heart & Stroke Foundation of Canada; 2006. p. 67-70.

### **ADAPTATION**

Not applicable: The guideline was not adapted from another source.

### **DATE RELEASED**

2006

### **GUIDELINE DEVELOPER(S)**

Canadian Stroke Network - Disease Specific Society  
Heart and Stroke Foundation of Canada - Disease Specific Society

### **SOURCE(S) OF FUNDING**

Government Funding – National Centres of Excellence Program

### **GUIDELINE COMMITTEE**

Canadian Stroke Strategy Best Practices and Standards Working Group

### **COMPOSITION OF GROUP THAT AUTHORED THE GUIDELINE**

*Working Group Members:* Dr. Stephen Phillips (Co-Chair), Director Acute Stroke Service, Queen Elizabeth II Health Sciences Centre, Nova Scotia; Ms. Alison McDonald (Co-Chair), Physiotherapist, Nova Scotia Rehabilitation Centre, Capital Health, Nova Scotia; Ms. Lisa Ashley, Senior Advisor, Public Health Agency of Canada; Dr. Nigel Ashworth, Director of Physical Medicine and Rehabilitation, Glenrose Rehabilitation Hospital, Alberta; Dr. Mark Bayley, Physiatrist, Associate, Medicine Toronto Rehabilitation Institute, Ontario; Dr. Alan Bell, Family Practitioner, College of Family Physicians of Canada; Dr. Lucie Brosseau, Associate

Professor, Rehabilitation Sciences, University of Ottawa, Ontario; Ms. Nancy Cooper, Director of Policy and Professional Development, Ontario Long Term Care Association; Ms. Bev Culham, Project Manager, Alberta Provincial Stroke Strategy, Alberta; Dr. Ian Graham, Vice President, Knowledge Translation Canadian Institutes for Health Research (CIHR); Dr. Gordon Gubit, Neurologist Acute Stroke Unit & Outpatient Neurovascular Clinic, Queen Elizabeth II Health Sciences Centre, Nova Scotia; Ms. Valerie MacGillivray, Speech Language Pathologist, British Columbia; Ms. Janel Nadeau, Patient Advocate, Stroke Recovery Association, Alberta; Ms. Louise Nichol, Community Team Manager, Home Care Program, Community Stroke Care Service, Manitoba; Ms. Christina O'Callaghan, Regional Stroke Program Manager, Ontario; Ms. Elizabeth Swain, Physiotherapist, British Columbia; Dr. John Witt, Director Acute Stroke Care, Department of Emergency Medicine, Royal University Hospital, Saskatchewan; Ms. Rika VanderLaan, Consultant, Heart and Stroke Foundation of Ontario; Ms. Mary Elizabeth Harriman, Associate Executive Director, Heart and Stroke Foundation of Canada; Ms. Katie Lafferty, Executive Director, Canadian Stroke Network; Ms. Debra Lynkowski, Director, Canadian Stroke Strategy; Dr. Patrice Lindsay, Co-Chair CSS Information & Evaluation Working Group, Canadian Stroke Strategy; Ms. Laurie Cameron, Program Coordinator and Executive Assistant, Canadian Stroke Strategy; Ms. Gail Williams, Consultant, Canadian Stroke Strategy

## **FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST**

Not stated

## **ENDORSER(S)**

World Stroke Organization - International Agency

## **GUIDELINE STATUS**

This is the current release of the guideline.

The Canadian Best Practice Recommendations for Stroke Care 2006 will be updated every two years to remain current and incorporate new research findings.

## **GUIDELINE AVAILABILITY**

Electronic copies: Available from the [Canadian Stroke Strategy Web site](#).

Print copies: Available from The Canadian Stroke Strategy, 451 Smyth Road, Room 3105, Ottawa, Ontario K1H 8M5.

## **AVAILABILITY OF COMPANION DOCUMENTS**

The following are available:

- Canadian Stroke Strategy performance measurement manual: a supplement to the Canadian best practice recommendations for stroke care. 2007 May. 35 p. Electronic copies: Available in Portable Document Format (PDF) from the [Canadian Stroke Strategy Web site](#).

- Stroke prevention cards: risk stratification for early stroke recurrence following TIA. 2 p. Electronic copies: Available in Portable Document Format (PDF) from the [Canadian Stroke Strategy Web site](#).
- Integrated stroke care in Ontario: stroke evaluation report 2006. 2007 Jul. 72 p. Available in Portable Document Format (PDF) from the [Canadian Stroke Strategy Web site](#).
- Stroke services and resources inventory: a national survey initiative. 2007 Jun. 36 p. Available in Portable Document Format (PDF) from the [Canadian Stroke Strategy Web site](#).

Print copies: Available from The Canadian Stroke Strategy, 451 Smyth Road, Room 3105, Ottawa, Ontario; K1H 8M5.

Additionally, suggested performance measures are available in the [original guideline document](#).

## **PATIENT RESOURCES**

A variety of patient information resources, including a list of stroke warning signs, is available from the [Heart & Stroke Foundation of Canada Web site](#).

Please note: This patient information is intended to provide health professionals with information to share with their patients to help them better understand their health and their diagnosed disorders. By providing access to this patient information, it is not the intention of NGC to provide specific medical advice for particular patients. Rather we urge patients and their representatives to review this material and then to consult with a licensed health professional for evaluation of treatment options suitable for them as well as for diagnosis and answers to their personal medical questions. This patient information has been derived and prepared from a guideline for health care professionals included on NGC by the authors or publishers of that original guideline. The patient information is not reviewed by NGC to establish whether or not it accurately reflects the original guideline's content.

## **NGC STATUS**

This NGC summary was completed by ECRI Institute on July 14, 2008. The information was verified by the guideline developer on August 27, 2008.

## **COPYRIGHT STATEMENT**

This NGC summary is based on the original guideline, which is subject to the guideline developer's copyright restrictions.

## **DISCLAIMER**

### **NGC DISCLAIMER**

The National Guideline Clearinghouse™ (NGC) does not develop, produce, approve, or endorse the guidelines represented on this site.

All guidelines summarized by NGC and hosted on our site are produced under the auspices of medical specialty societies, relevant professional associations, public or private organizations, other government agencies, health care organizations or plans, and similar entities.

Guidelines represented on the NGC Web site are submitted by guideline developers, and are screened solely to determine that they meet the NGC Inclusion Criteria which may be found at <http://www.guideline.gov/about/inclusion.aspx>.

NGC, AHRQ, and its contractor ECRI Institute make no warranties concerning the content or clinical efficacy or effectiveness of the clinical practice guidelines and related materials represented on this site. Moreover, the views and opinions of developers or authors of guidelines represented on this site do not necessarily state or reflect those of NGC, AHRQ, or its contractor ECRI Institute, and inclusion or hosting of guidelines in NGC may not be used for advertising or commercial endorsement purposes.

Readers with questions regarding guideline content are directed to contact the guideline developer.

© 1998-2008 National Guideline Clearinghouse

Date Modified: 11/10/2008

